



SN-US035127

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Kouji UNO

Serial No.: 10/678,176

Filed: October 6, 2003

For: CHARGING APPARATUS OF
BICYCLE DYNAMO

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner of Patents
Washington, DC 20231

Sir:

In accordance with MPEP 609 and 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicants bring the attached references to the Examiner's attention and request that they be considered and made of record in this application. Also attached is a completed PTO-1449 form. This Information Disclosure Statement is being filed within three (3) months of the filing date of this application. Thus, *no fee is believed to be due for this Information Disclosure Statement*. However, the Commissioner is authorized to charge any fees associated with this communication or credit any overpayment to Deposit Account No. 50-1836. A duplicate copy of this Statement is enclosed for that purpose.

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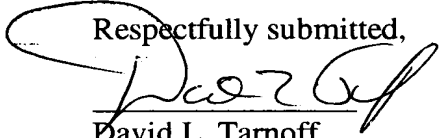
Japanese Patent Publication Number 2002-262473 discloses a voltage doubler rectifying circuit with a protective circuit 11 which reduces a reverse voltage to be applied to an electrolytic capacitor when a power switch is closed in a positive half cycle of the a.c. supply voltage. The protective circuit 11 is connected in parallel to an electrolytic capacitor, and uses a diode. When a power switch 9 is closed at the t0 point, a peak of the a.c. supply voltage 'v' in a positive half cycle, the diode of the protective circuit 11 and a diode 3 come to the conduction state and then charging current flows in a second capacitor 4. At that time,

the electrolytic capacitor 1 gets shortened due to the diode of the protective circuit 11 which is caused to conduct due to the positive a.c. supply voltage. Therefore, a reverse voltage to be applied to the electrolytic capacitor 1 is controlled to $-VF$ which corresponds to a forward voltage of the diode 11.

* * *

Prompt examination on the merits is respectfully requested.

Respectfully submitted,



David L. Tarnoff
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Complete if Known

Application Number	10/678,176
Filing Date	October 6, 2003
First Named Inventor	Kouji UNO
Group Art Unit	
Examiner Name	
Attorney Docket Number	SN-US035127

(use as many sheets as necessary)

Sheet	1	of	1
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[illegible][illegible]Date
Considered

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.